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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,671	07/02/2003	Tod R. Smeal	034536-0407	5378
22428	7590	05/01/2007		
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER XIE, XIAOZHEN	
			ART UNIT 1646	PAPER NUMBER
			MAIL DATE 05/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/611,671

Applicant(s)

SMEAL ET AL.

Examiner

Xiaozhen Xie

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-103 is/are pending in the application.
- 4a) Of the above claim(s) 1-21 and 25-103 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 22 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☒ Other: seq. alignment

## **DETAILED ACTION**

### ***Response to Amendment***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after the previous non-final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's amendment of the claims received on 6 February 2007 has been entered.

### ***Election/Restriction***

Applicant previously elected Group III, claims 21-26, and species "SEQ ID NO: 4". Applicant now selected for examination of species "SEQ ID NO: 3" in a response received on 6 February 2007. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-103 are pending. Claims 1-20 and 27-103 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claims 21-26 are under examination to the extent they read on elected species. Claims 22, 23 and 24 read on the elected species.

***Claim Objections/Rejections Withdrawn***

The objection to claims 21, 23 and 24 for reciting non-elected invention is withdrawn in response to applicant's amendment of the claims and election of a different species.

The rejection of claims 22, 25 and 26 under 35 U.S.C. 101 for being directed to non-statutory subject matter is withdrawn in response to applicant's amendment of the claims and election of a different species.

The rejection of claim 22 under 35 U.S.C. 102(e) as being anticipated by Jackson et al. is withdrawn in response to applicant's amendment of the claims and election of a different species.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Jackson et al. (US 2005/0100554 A1, which has a provisional filing date on 14 February 2002).

The instant claim is directed to an isolated GEF-H1 antibody directed against a peptide comprising the sequence described in SEQ ID NO: 3.

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Jackson teaches an antibody directed against an amino acid sequence (SEQ ID NO: 53) that comprises the sequence described in SEQ ID NO: 3 of the instant application (see alignment) ([0014] [0193]). Jackson teaches that the amino acid sequence of SEQ ID NO: 53 corresponds to ARHGEF2 ([0193]), which is also known as GEF-H1. Jackson teaches that such antibodies can be generated using peptides containing antigenic regions as immunogens ([0089-0091]). Since Jackson teaches polyclonal antibodies to a peptide that comprises SEQ ID NO: 3, it would be expected that such antibodies would specifically bind to the amino acid sequence comprising SEQ ID NO: 3. Therefore, Jackson anticipates the instant claim.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites "the isolated GEF-H1-specific antibody, wherein said serine is serine-810". SEQ ID NO: 3 has a total of 18 amino acids. The claim is indefinite because it is unclear which sequence the claim is referred to. Krendel et al. (Nature Cell Biol., 2002, 4:294-301) teach that human GEF-H1 shares 88% homology to its mouse homologue, Lfc. Therefore, without a specific sequence reference, the recitation renders the claim indefinite.

***Additional Reference, Cited as of Interest***

Ren et al. (J. Biol. Chem., 1998, Vol. 273(52), pp. 34954-34960) teach an anti-GEF-H1 polyclonal antibody raised against a GST-GEF-H1 fusion protein (amino acid residues 691-891 of GEF-H1) in rabbits (pp. 34955, 4<sup>th</sup> paragraph in Experimental Procedures). However, the amino acid sequence of GEF-H1 described by Ren et al. in Figure 1 does not comprise the SEQ ID NO: 3 of the instant application. Krendel et al. (Nature Cell Biol., 2002, 4:294-301) describes that re-sequencing of the cDNA of the GEF-H1 identified several discrepancies which result in a frame shift (pp. 300, in section DNA constructs).

***Conclusion***

CLAIM 23 IS ALLOWABLE.

CLAIM 22 AND 24 ARE REJECTED.

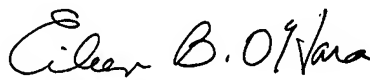
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiaozhen Xie whose telephone number is 571-272-5569. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary B. Nickol, Ph.D. can be reached 571-272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Xiaozhen Xie, Ph.D.  
April 23, 2007

  
EILEEN B. O'HARA  
PRIMARY EXAMINER

<!--StartFragment-->RESULT 11

US-10-367-057-53

; Sequence 53, Application US/10367057

; Publication No. US20050100554A1

; GENERAL INFORMATION:

; APPLICANT: Cuthill, Scott;

; APPLICANT: Jackson, Amanda;

; APPLICANT: Lewin, David A.;

; APPLICANT: Ooi, Chean Eng

; TITLE OF INVENTION: Complexes and Methods of Using Same

; FILE REFERENCE: 21402-559

; CURRENT APPLICATION NUMBER: US/10/367,057

; CURRENT FILING DATE: 2003-02-14

; PRIOR APPLICATION NUMBER: 60/256,911

; PRIOR FILING DATE: 2002-02-14

; NUMBER OF SEQ ID NOS: 198

; SOFTWARE: CuraSeqList version 0.1

; SEQ ID NO 53

; LENGTH: 958

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-367-057-53

Query Match 100.0%; Score 95; DB 5; Length 958;

Best Local Similarity 100.0%; Pred. No. 2.9e-06;

Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 RRRSLPAGDALYLSFNPP 18

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Db 855 RRRSLPAGDALYLSFNPP 872

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